

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-21. (Canceled)

22. (Currently Amended) A method of treating a disease or disorder in a patient, comprising the step of administering the albumin fusion protein of claim 30 [[1]].

23-25. (Canceled)

26. (Currently Amended) A method of extending the shelf life of a HJACE54 polypeptide, ~~Therapeutic protein:X~~, or fragment or variant thereof, comprising the step of fusing the HJACE54 polypeptide, ~~Therapeutic protein:X~~, or fragment or variant thereof, to albumin, or fragment or variant thereof, sufficient to extend the shelf-life of the HJACE54 polypeptide, ~~Therapeutic protein:X~~, or fragment or variant thereof, compared to the shelf-life of the HJACE54 polypeptide, ~~Therapeutic protein:X~~, or fragment or variant thereof, in an unfused state.

27. (Currently Amended) A nucleic acid molecule comprising a polynucleotide sequence encoding the albumin fusion protein of claim 30 [[1]].

28-29. (Canceled)

30. (new) An albumin fusion protein comprising a HJACE54 polypeptide fused to albumin or albumin fragment or variant thereof, wherein said albumin fragment or variant increases the serum half-life of the unfused HJACE54 polypeptide.

31. (new) The albumin fusion protein of claim 30 wherein said HJACE54 polypeptide is selected from:

- (a) a full-length HJACE54 polypeptide;
- (b) a fragment of the HJACE54 polypeptide; and
- (c) a variant of the HJACE54 polypeptide;

wherein said fragment or variant of the HJACE54 polypeptide retains the activity of the HJACE54 polypeptide.

32. (new) The albumin fusion protein of claim 31, wherein said fragment is an N-terminal deletion mutant, a C-terminal deletion mutant, or an N-terminal and C-terminal deletion mutant.

33. (new) The albumin fusion protein of claim 31, wherein said fragment or variant of the HJACE54 polypeptide comprises a polypeptide at least 90% identical to the full-length HJACE54 polypeptide.

34. (new) The albumin fusion protein of claim 31, wherein said fragment or variant of the HJACE54 polypeptide comprises a polypeptide at least 95% identical to the full-length HJACE54 polypeptide.

35. (new) The albumin fusion protein of claim 30, wherein said albumin or albumin fragment or variant comprises an amino acid sequence selected from:

- (a) amino acid residues 1 to 585 of SEQ ID NO:18; and
- (b) amino acid residues 1 to 387 of SEQ ID NO:18.

36. (new) The albumin fusion protein of claim 30, which further comprises a second HJACE54 polypeptide, wherein said second HJACE54 polypeptide is a different HJACE54 polypeptide from the first HJACE54 polypeptide.

37. (new) The albumin fusion protein of claim 30, wherein said HJACE54 polypeptide is fused at the N-terminus, at the C-terminus, or at both the N-terminus and the C-terminus of the albumin or albumin fragment or variant thereof.

38. (new) The albumin fusion protein of claim 30, wherein said HJACE54 polypeptide is separated from said albumin or albumin fragment or variant thereof by a linker peptide.

39. (new) The albumin fusion protein of claim 30 further comprising a secretion leader sequence.

40. (new) The albumin fusion protein of claim 30, wherein the shelf-life of the albumin fusion protein is greater than the shelf-life of the HJACE54 polypeptide in an unfused state.

41. (new) The albumin fusion protein of claim 30, wherein the half-life of the albumin fusion protein is greater than the half-life of the HJACE54 polypeptide in an unfused state.

42. (new) The albumin fusion protein of claim 30, which is non-glycosylated.

43. (new) The albumin fusion protein of claim 30, which is expressed in yeast.

44. (new) The albumin fusion protein of claim 43, wherein said yeast is a *S. cerevisiae*.

45. (new) The albumin fusion protein of claim 43, wherein said yeast is glycosylation deficient.

46. (new) The albumin fusion protein of claim 43, wherein said yeast is glycosylation and protease deficient.

47. (new) The albumin fusion protein of claim 43, wherein said albumin fusion protein is encoded by a polynucleotide that is codon-optimized for expression in yeast.

48. (new) The albumin fusion protein of claim 30, which is expressed by a mammalian or bacterial cell.

49. (new) The albumin fusion protein of claim 48, wherein said mammalian cell is a COS, CHO, or NS0 cell.

50. (new) A composition comprising the albumin fusion protein of claim 30 and a pharmaceutically acceptable carrier.

51. (new) A kit comprising the composition of claim 50.